



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/696,831

10/30/2003

James T. Beaucaire

D5453

9115

30409

7590

05/25/2005

INTERNATIONAL ENGINE INTELLECTUAL PROPERTY COMPANY

4201 WINFIELD ROAD

P.O. BOX 1488

WARRENVILLE, IL 60555

EXAMINER

MCCALL, ERIC SCOTT

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8m

Office Action Summary	Application No. 10/696,831	Applicant(s) BEAUCAIRE ET AL.	
	Examiner Eric S. McCall	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

**METHOD AND APPARATUS FOR INDICATING A
POTENTIAL FLUID FILTER PROBLEM**

FINAL OFFICE ACTION

In response to the Applicant's amendment dated March 11, 2005.

TITLE

In response to the Applicant's amended title, the objection thereto as set forth in the previous office action has been overcome.

CLAIMS

35 U.S.C. § 102

In response to the Applicant's amendments to the claims, the rejection of claims 1, 5-9, and 12-16 under 35 U.S.C. 102(e) as being anticipated by Gottemoller et al. (2004/0200457) has been overcome. However, the following now applies:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 4-10, 12-17, 19, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Mazet (6,672,147).

With regards to claim 1, Mazet teaches a method comprising the steps of:

obtaining a measured fluid pressure near a fluid filter in an internal combustion engine (abstract, ie. the fuel pressure is measured “near” the fuel filter);

determining a predetermined value based on at least one engine operating parameter (the reference value disclosed throughout the prior art in which the measured fuel pressure is compared to);

comparing the measured fluid pressure to the predetermined value, yielding a compared pressure (abstract);

when the compared pressure exceeds an established value, indicating that a potential fluid filter problem is present (ie. the clogging of the fuel filter).

With regards to claim 2, Mazet suggests the engine operating parameter includes that of engine speed and/or engine load as claimed because the predetermined value of Mazet is that of

Art Unit: 2855

engine work rate and such a work rate essentially is engine load and engine load takes into account engine speed.

With regards to claim 4, Mazet clearly teaches the claimed subject matter.

With regards to claim 5, Mazet suggests measuring the fluid pressure near the filter's outlet (col. 6, line 2).

With regards to claim 6, Mazet suggests measuring the fluid pressure "near" the filter's inlet (abstract).

With regards to claim 7, Mazet teaches a method comprising the steps of:
obtaining a measured fluid pressure near a fluid filter in an internal combustion engine (abstract, ie. the fuel pressure is measured "near" the fuel filter);

determining a predetermined value that is a function of at least one engine operating parameter (the reference value disclosed throughout the prior art in which the measured fuel pressure is compared to);

determining a difference between the predetermined value and the measured fluid pressure (abstract); and

determining whether to indicate a warning condition for the filter based on the difference (ie. the clogging of the fuel filter).

With regards to claim 8, Mazet suggests measuring the fluid pressure near the filter's outlet (col. 6, line 2).

With regards to claim 9, Mazet suggests measuring the fluid pressure "near" the filter's inlet (abstract).

With regards to claim 10, Mazet suggests the engine operating parameter includes that of engine speed and/or engine load as claimed because the predetermined value of Mazet is that of engine work rate and such a work rate essentially is engine load and engine load takes into account engine speed.

With regard to claims 12 and 13, Mazet suggests indicating a warning condition and transmitting the warning condition to a remote location (col. 6, lines 33+). The Examiner notes that the remote location as claimed in the phrase "transmitting the warning condition to a remote location" would include the dashboard of a vehicle which would include such indicators because the dashboard is remote from the sensing mechanism.

With regards to claim 14, Mazat suggests an apparatus comprising:
a pressure sensor arranged and constructed to measure a pressure of a fluid near a filter for the fluid of an internal combustion engine, yielding a measured fluid pressure (abstract);

an engine control module arranged and constructed to determine a predetermined value based on at least one engine operating parameter and to compare the predetermined value to the measured fluid pressure, and based on results of the comparison, to indicate a warning condition for the filter (abstract).

With regards to claim 15, Mazet suggests measuring the fluid pressure and thus the location of the pressure sensor near at least one of the filter's outlet (col. 6, line 2) and the filter's inlet (abstract).

With regards to claim 16, Mazet suggests a display for indicating the warning condition as claimed (col. 6, lines 33-42).

With regards to claim 17, Mazet suggests the engine operating parameter includes that of engine speed and/or engine load as claimed because the predetermined value of Mazet is that of engine work rate and such a work rate essentially is engine load and engine load takes into account engine speed.

With regard to claims 19 and 20, Mazet teaches the potential fluid filter problem being that of clogging (abstract) and thus the inherent loss in engine performance.

35 U.S.C. § 103

In view of the Applicant's amendments to the claims, the claim rejections under 35 U.S.C. 103(a) as set forth in the previous office action have been overcome. However, the following now applies:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazet (6,672,147) in view of Amano et al. (2004/0060343).

With regard to claims 3, 11, and 18, Mazet teaches comparing the measured pressure to a predetermine value.

Mazet fails to teach activating a timer based on the pressure difference.

However, Amano et al. do teach comparing the difference between a measured pressure and a predetermined value to a predetermined value and activating a timer based on the difference (page 6, paragraph 84).

As such, it would have been obvious to one having ordinary skill in the art armed with said teachings to add to the teaching of Mazet the comparison of the difference between the measured pressure and the predetermined value to a predetermined value and then activating a timer based on the difference as taught by Amano et al.

The motivation being to monitor the pressure difference with respect to time since a given pressure difference may not be indicative of a problem if the time period over which the pressure difference is monitored is of a great length. Pressure differences of a given amount over a short time period may be indicative of a problem such as a leak. Use of a timer allows for this determination.

CITED DOCUMENTS

The Applicant's attention is directed to the enclosed "PTO-892" form for the documents made of record at the time this office action.

CONCLUSION


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eric S. McCall
Primary Examiner
Art Unit 2855
May 19, 2005